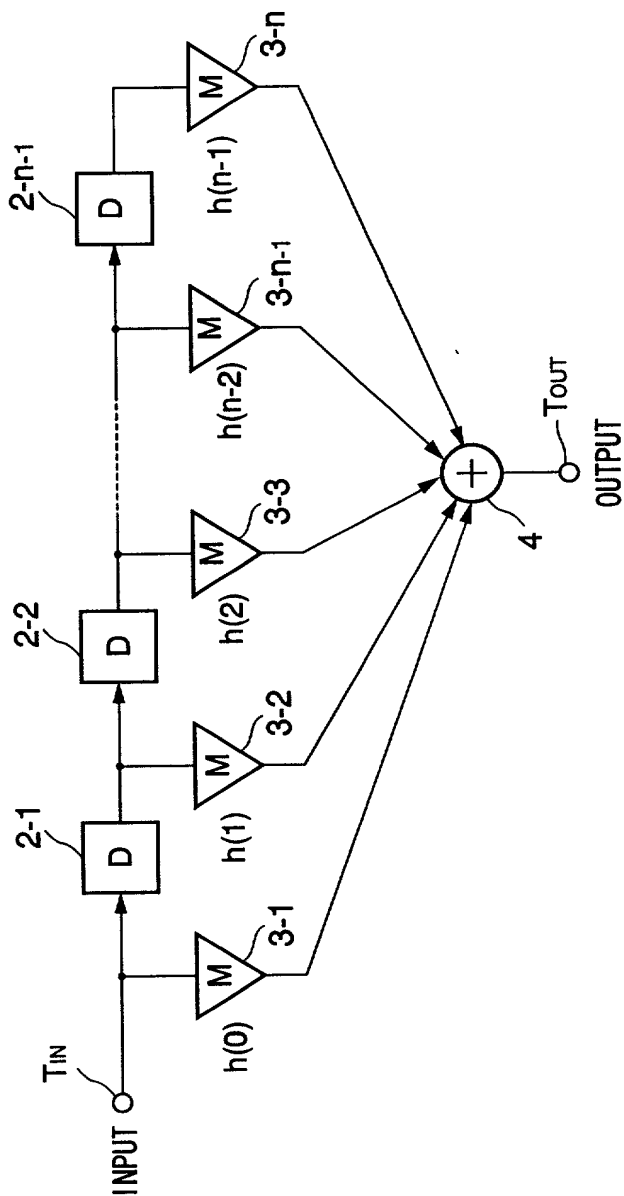


FIG. 1

1



109090-19042860

FIG.2A

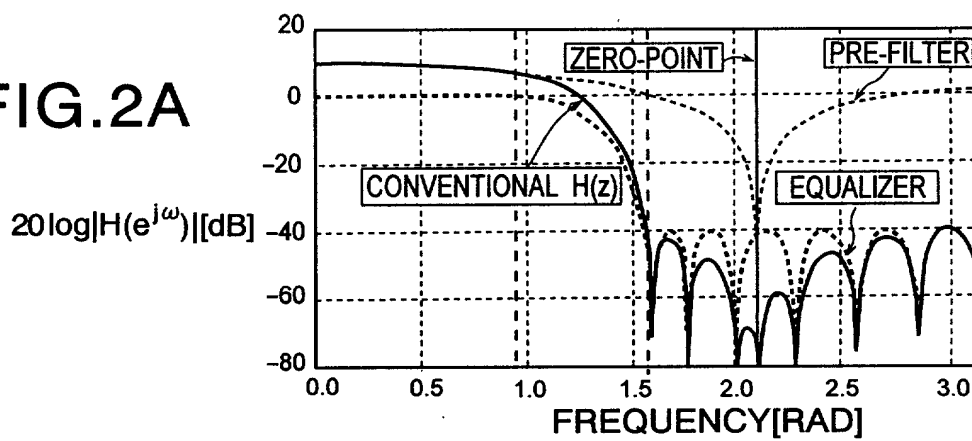


FIG.2B

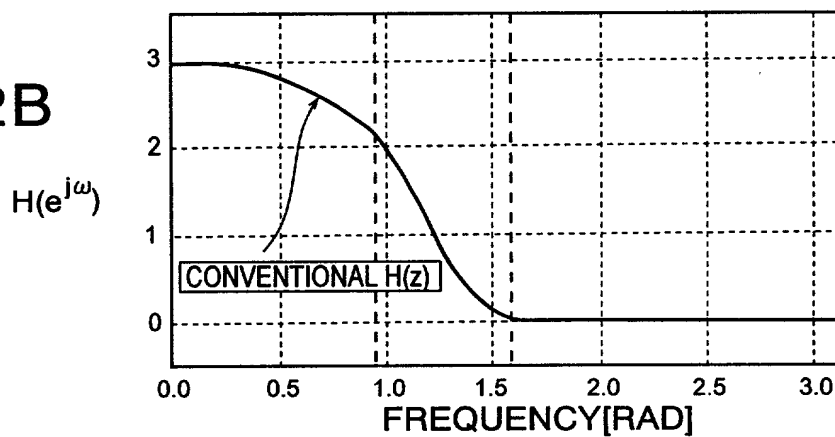
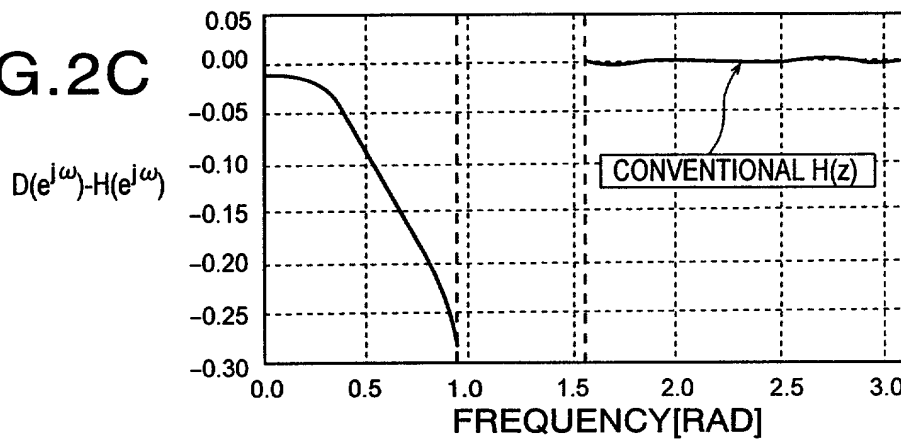


FIG.2C



105050 15042860

FIG.3A

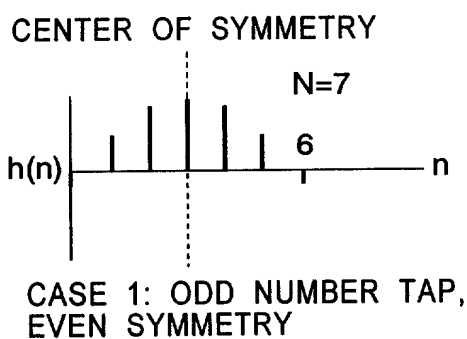


FIG.3B

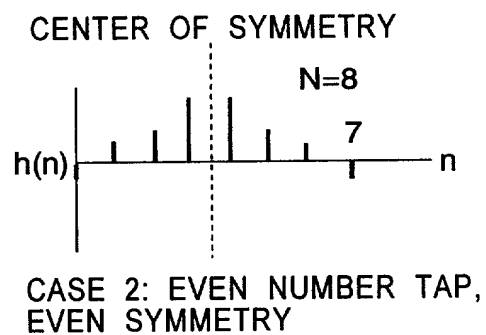


FIG.3C

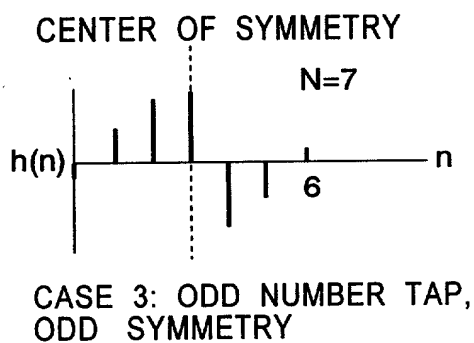


FIG.3D

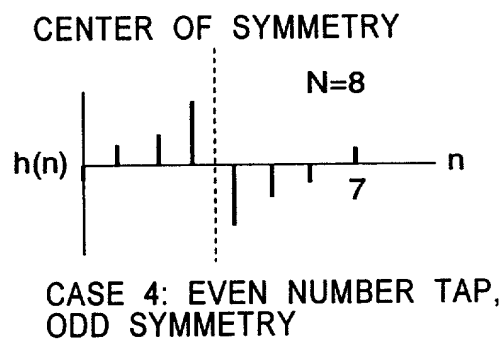
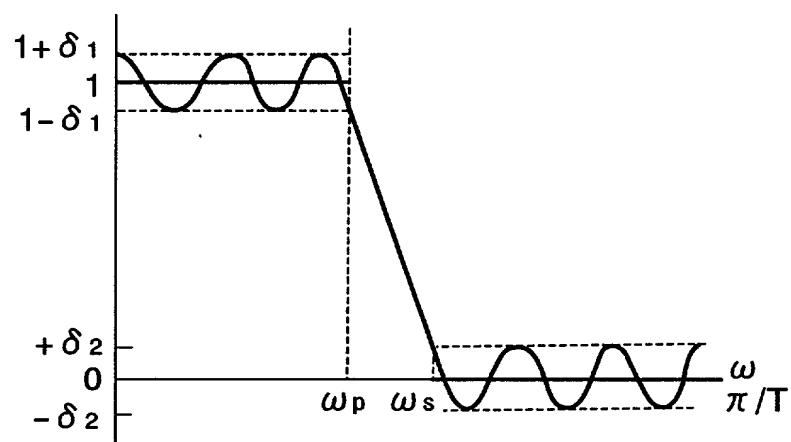


FIG.4

CASE	$Q(e^{j\omega})$	R
1	1	$(L-1)/2+1$
2	$\cos(\omega/2)$	$L/2-1+1$
3	$\sin(\omega)$	$(L-3)/2+1$
4	$\sin(\omega/2)$	$L/2-1+1$

FIG.5





105050 15042860

FIG.7A

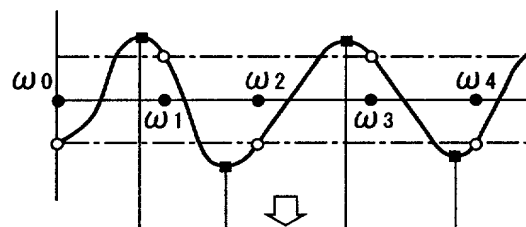


FIG.7B

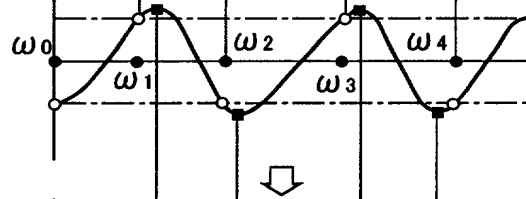


FIG.7C

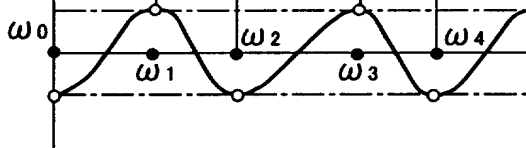


FIG.8

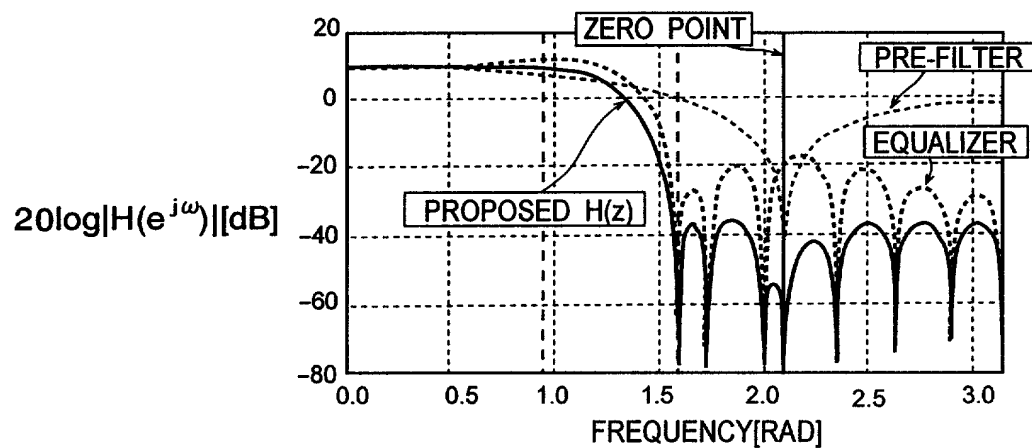


FIG.9A

$20 \log|H(e^{j\omega})|[\text{dB}]$

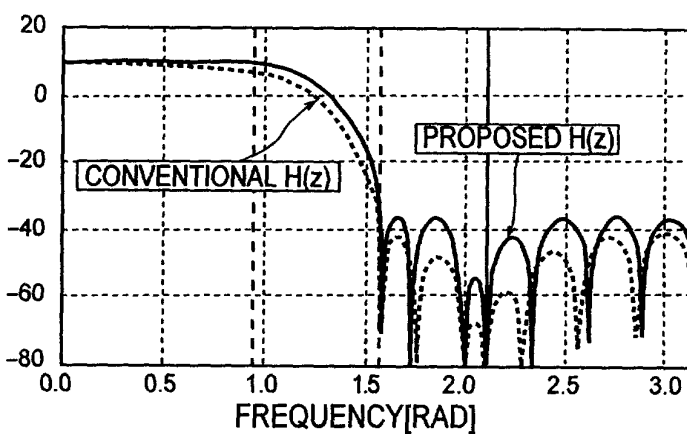
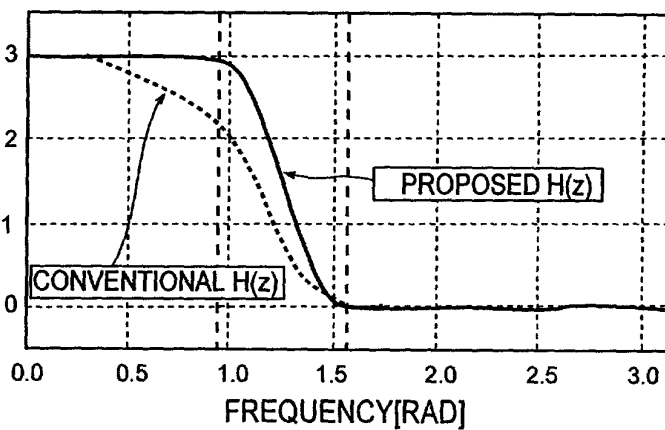


FIG.9B

$H(e^{j\omega})$



[illegible]

FIG. 10

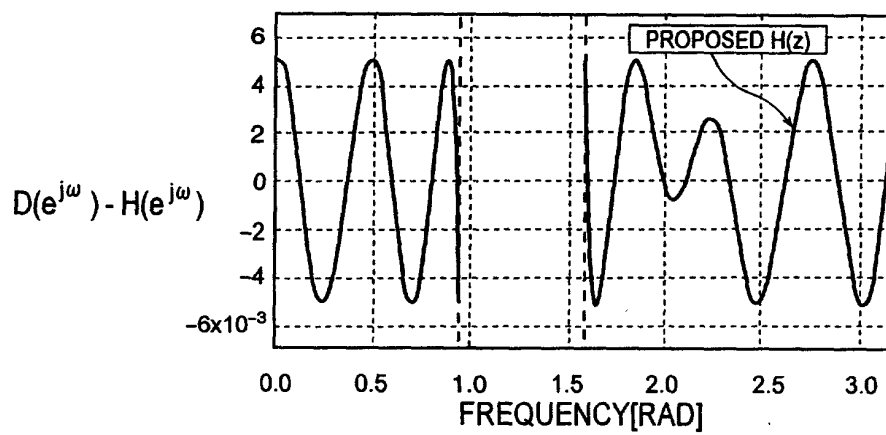
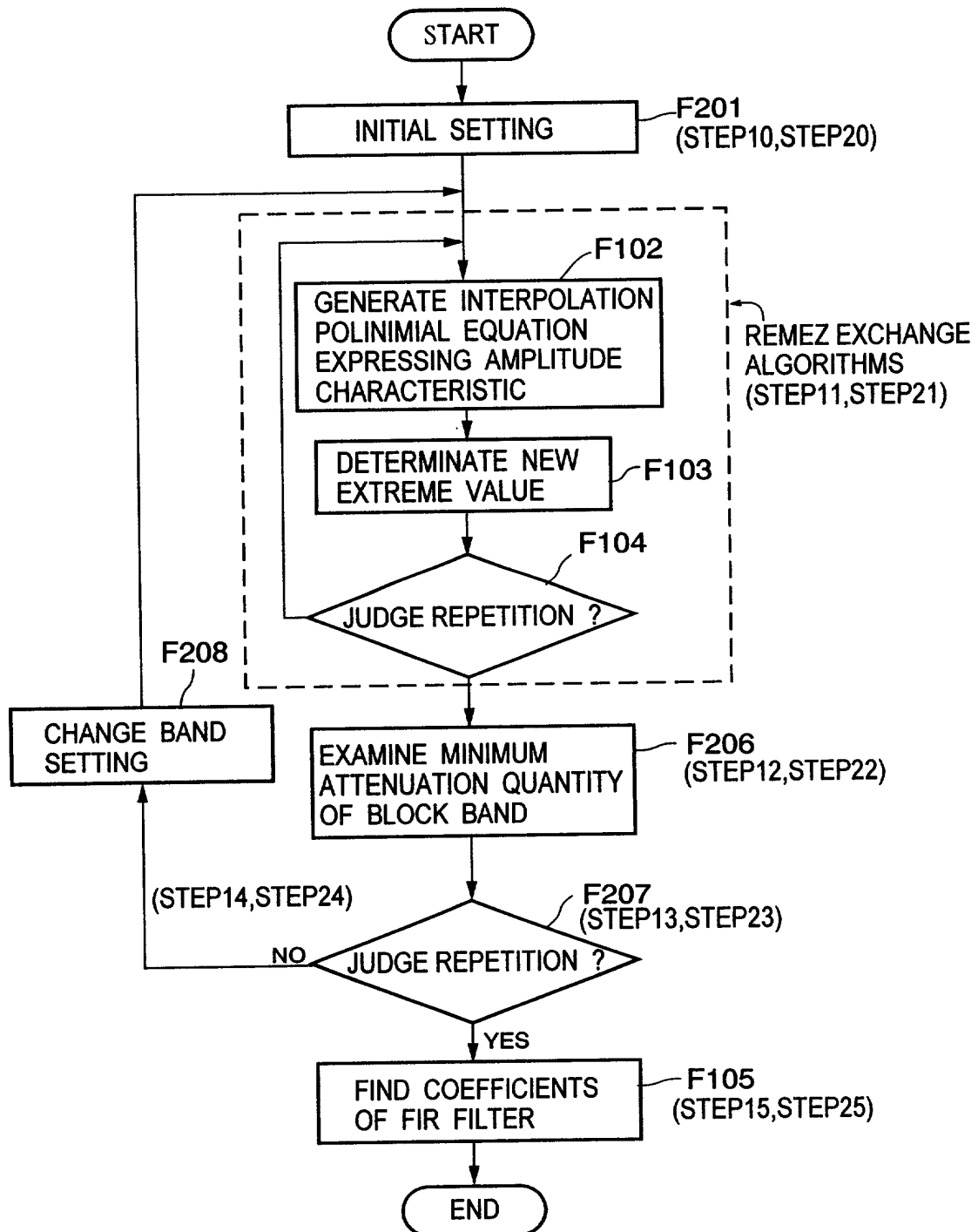


FIG.11



109090 F5042860

09374961 060601
105050 15042860

FIG.12

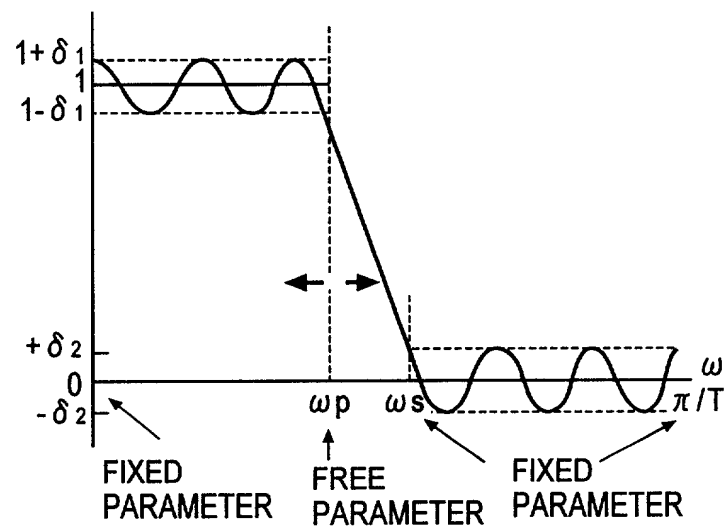
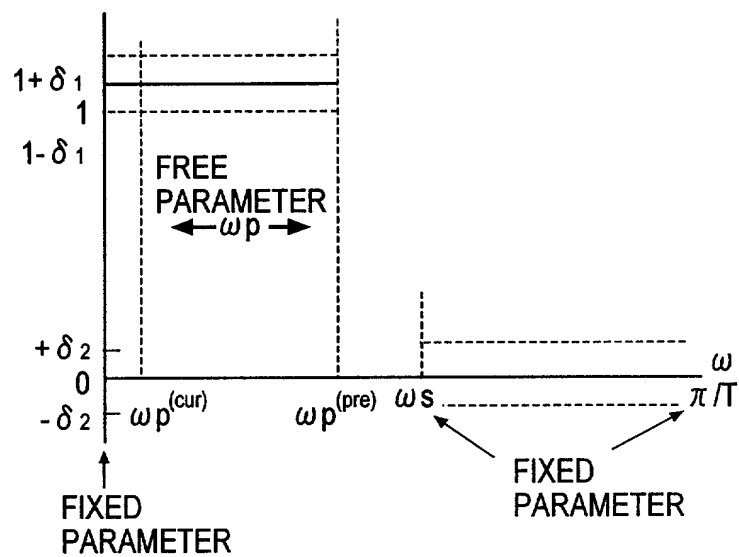


FIG.13



BOTH SATISFY
→END

FREQUENCY WITH LARGE ω_p
IS SOLUTION IN THIS CASE
SOLUTION IS $\omega_{p(\text{pre})}$

BOTH DOES NOT SATISFY
→NO SOLUTION→END

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

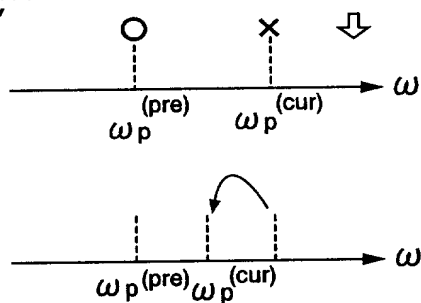
DESIGNATED
ATTENUATION
QUANTITY

FIG. 15B

**BOTH SATISFY
→FOR NEXT STEP**

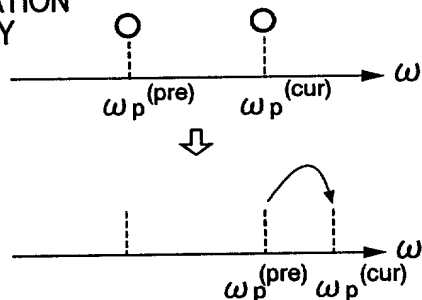
DESIGNATED
ATTENUATION
QUANTITY

FIG.16

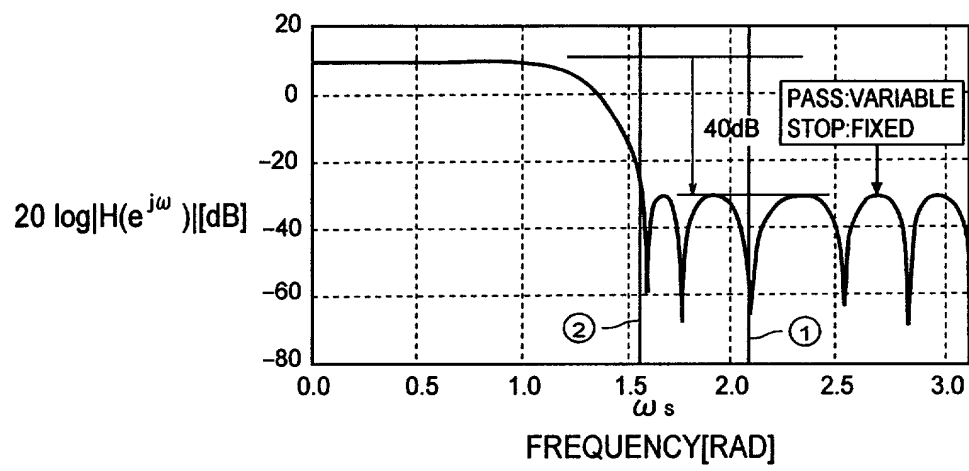


FIG.17

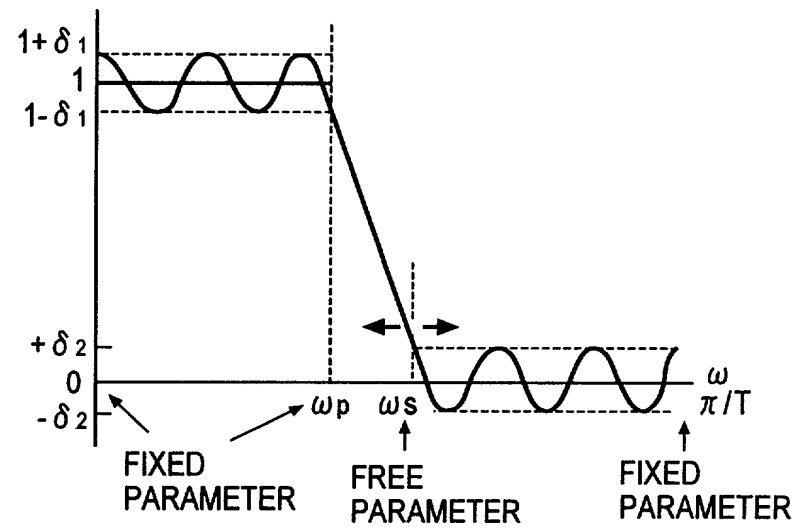


FIG.18

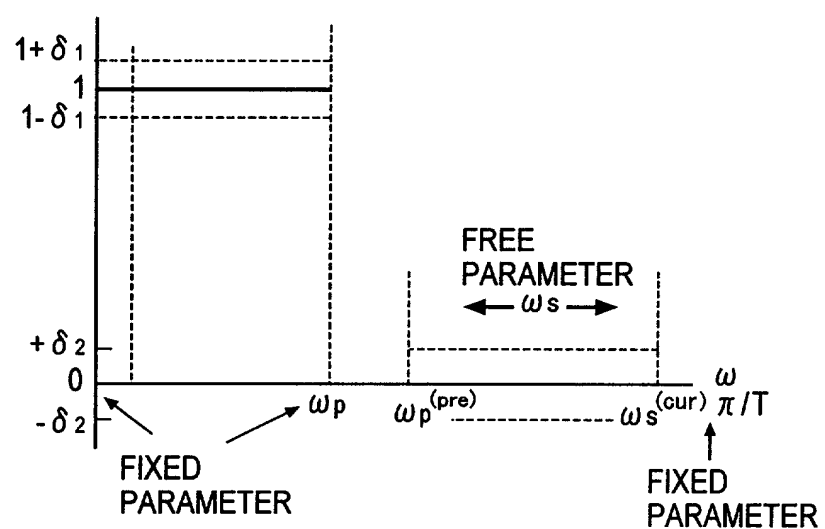
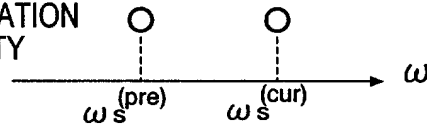


FIG.19A

BOTH SATISFY
→END

DESIGNATED
ATTENUATION
QUANTITY

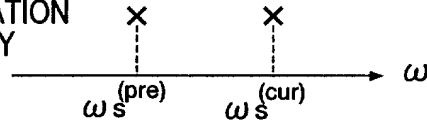


↓
FREQUENCY WITH SMALL ω_s
IS SOLUTION IN THIS CASE
SOLUTION IS $\omega_s^{(pre)}$

FIG.19B

BOTH DOES NOT SATISFY
→NO SOLUTION→END

DESIGNATED
ATTENUATION
QUANTITY



↓
NO SOLUTION IN THE
NUMBER OF TAP IN
THAT IT DOES NOT
SATISFY ATTENUATION
QUANTITY

FIG.19C

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

DESIGNATED
ATTENUATION
QUANTITY

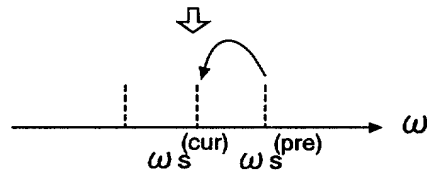
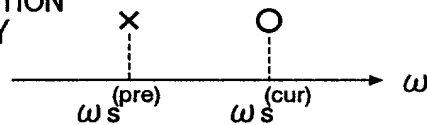


FIG.20A

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

DESIGNATED
ATTENUATION
QUANTITY

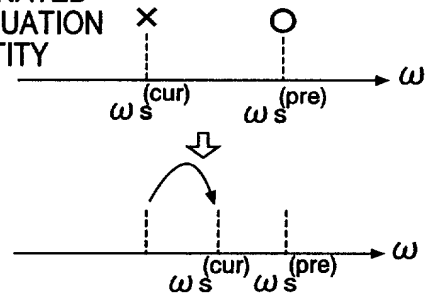


FIG.20B

BOTH SATISFY
→FOR NEXT STEP

DESIGNATED
ATTENUATION
QUANTITY

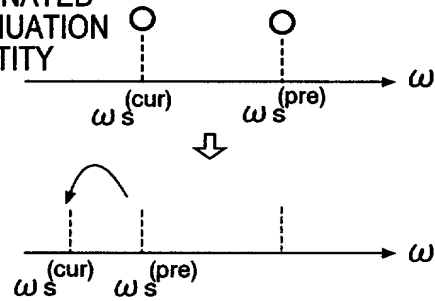
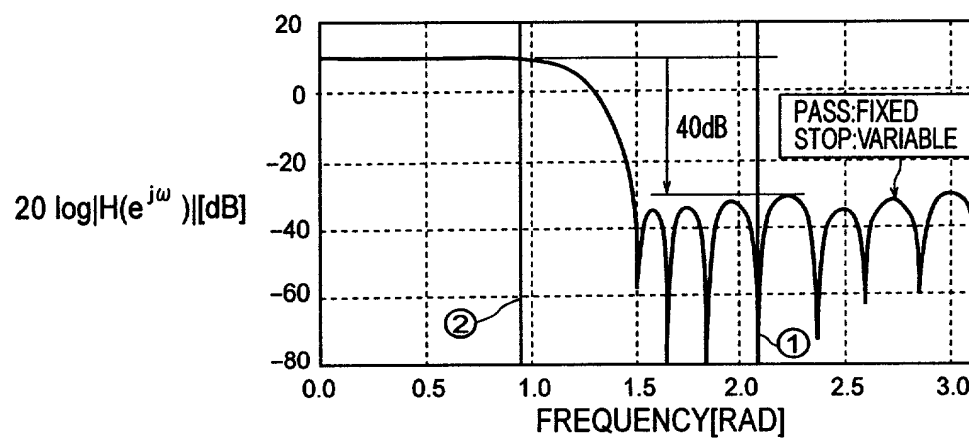


FIG.21



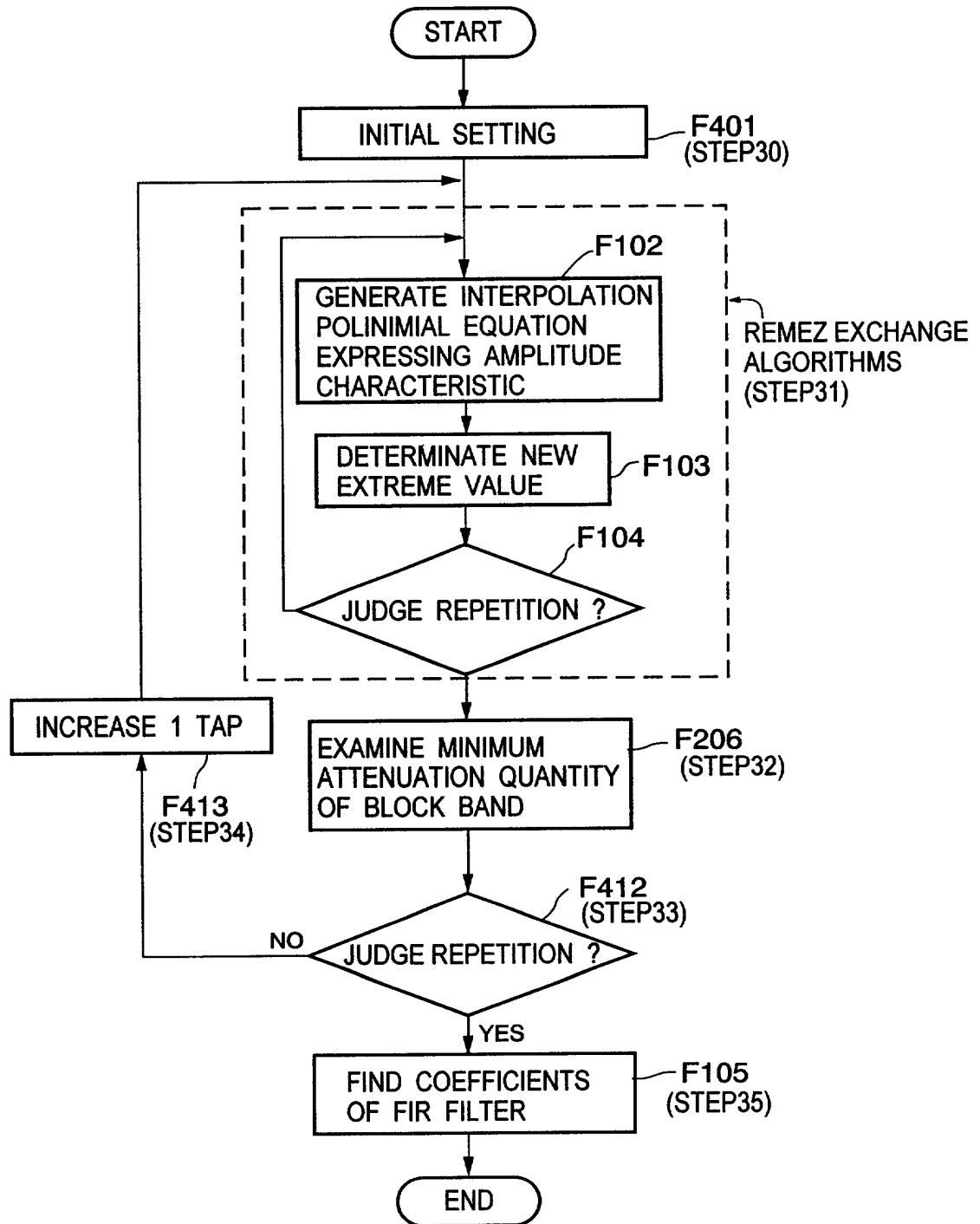
[illegible]

FIG.23

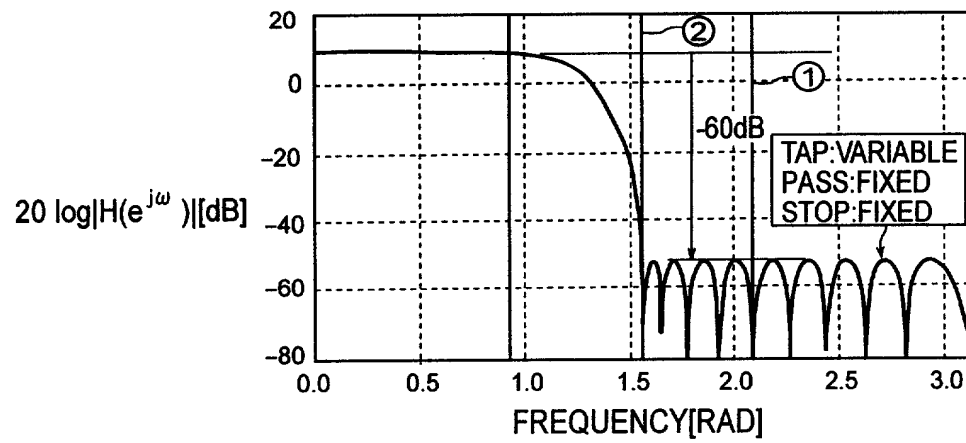
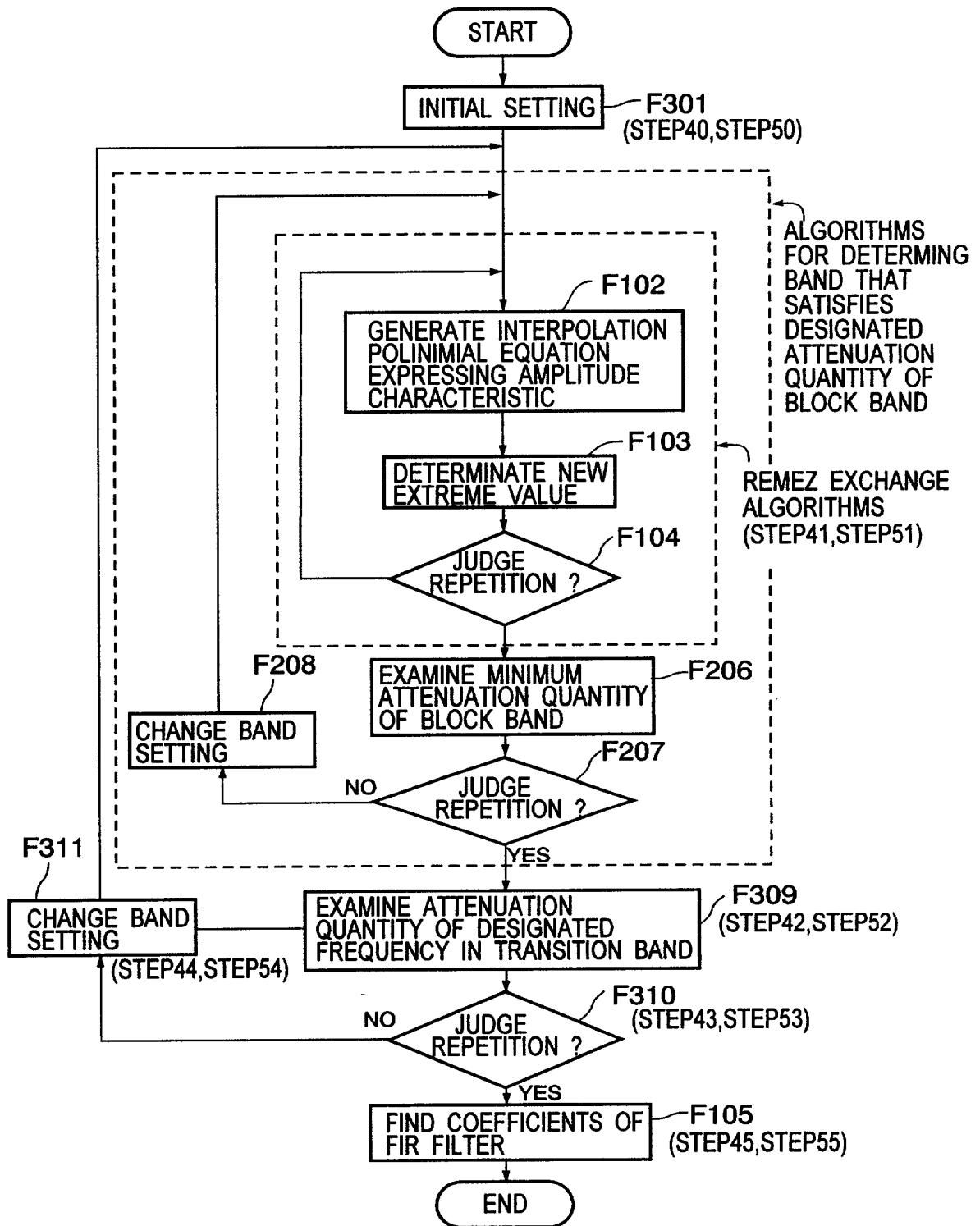


FIG.24



105090 T5042860

FIG.25

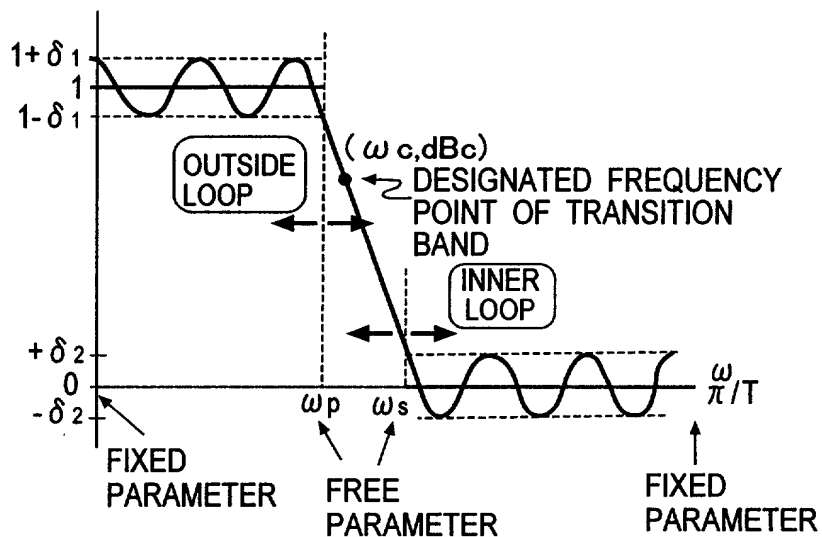
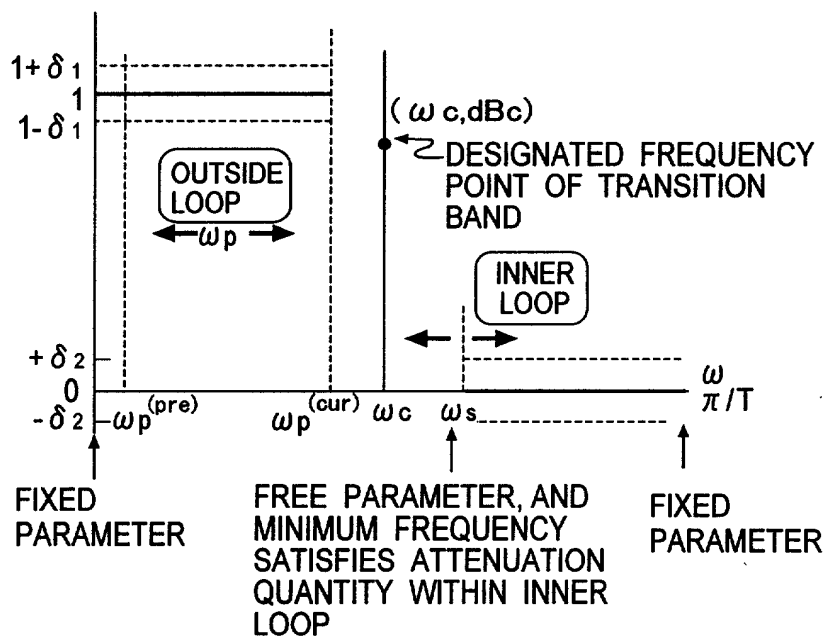


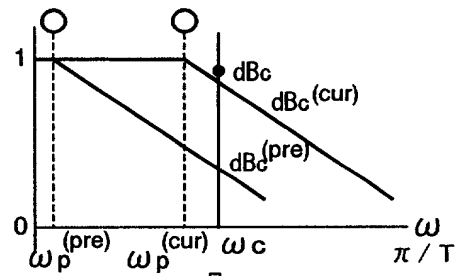
FIG.26



09874064 060604
105050 15042860

FIG.27A

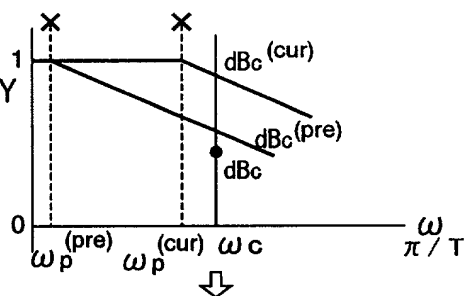
BOTH SATISFY
→END



FREQUENCY WITH LARGE ω_p
IS SOLUTION IN THIS CASE
SOLUTION IS $\omega_p^{(cur)}$

FIG.27B

BOTH DOES NOT SATISFY
→NO SOLUTION→END



NO SOLUTION IN THE NUMBER OF TAP
IN THAT IT IS NOT PASSED THROUGH
POINT (ω_c, dBc)
OF TRANSITION BAND

FIG.27C

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

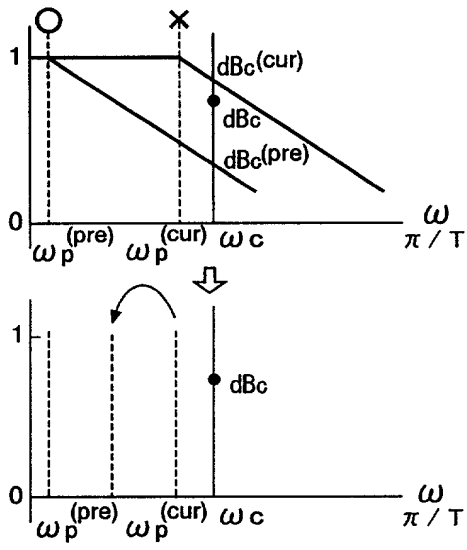


FIG. 28A

FIG.28A
ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

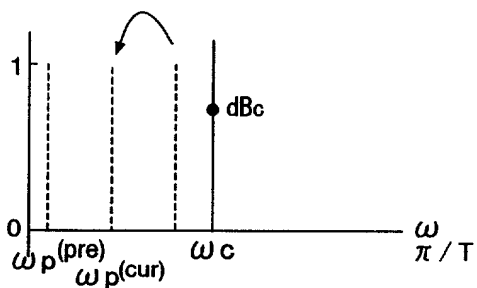
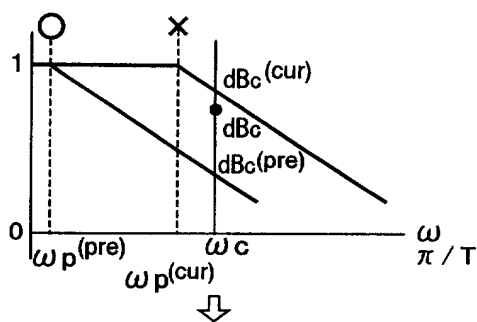


FIG.28B
BOTH SATISFY→FOR
NEXT STEP

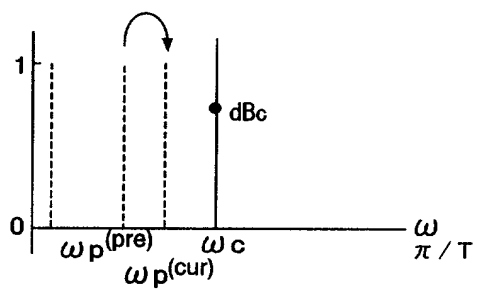
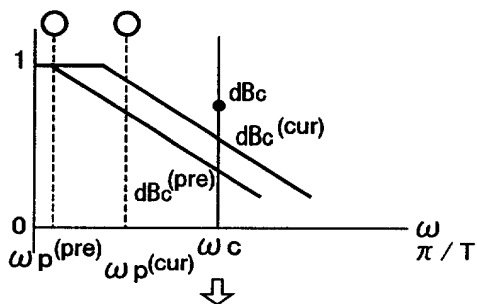


FIG.29

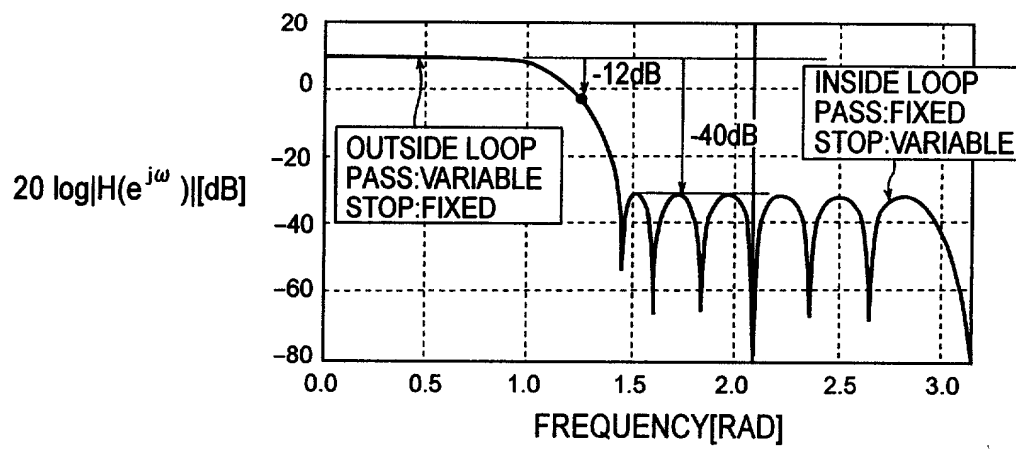


FIG.30

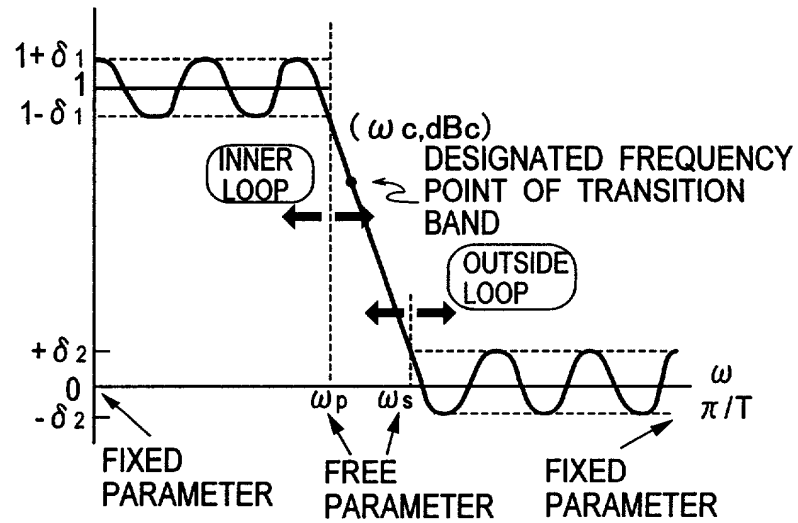


FIG.31

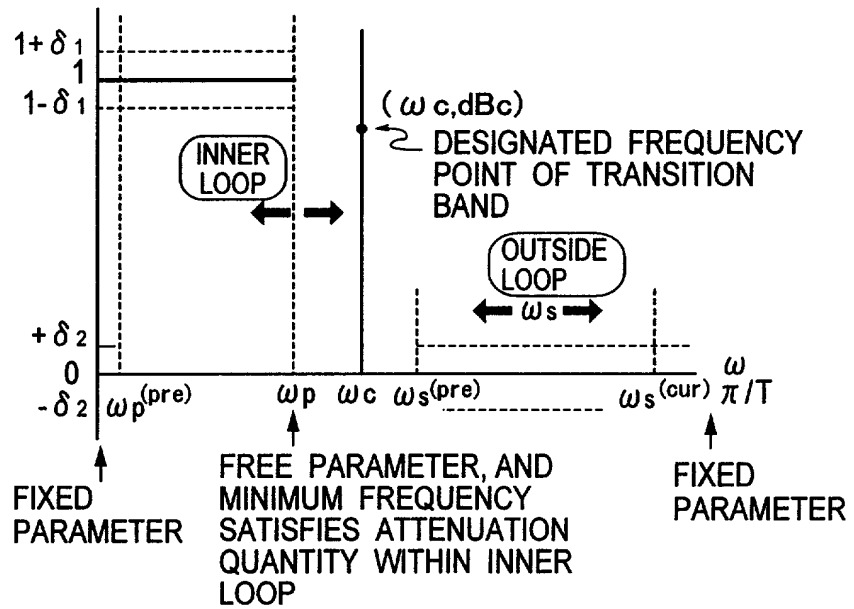
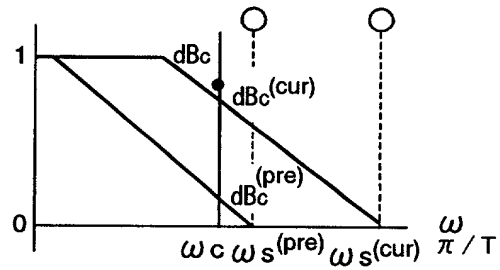


FIG.32A

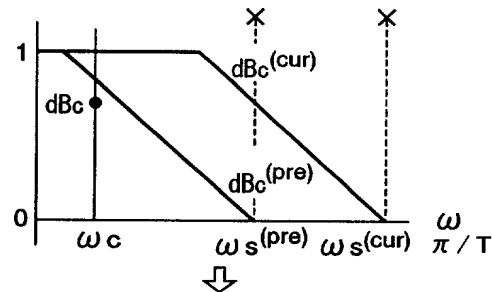
BOTH SATISFY
→END



FREQUENCY WITH LARGE ω_s
IS SOLUTION IN THIS CASE
SOLUTION IS ω_s (cur)

FIG.32B

BOTH DOES NOT SATISFY
→NO SOLUTION→END



NO SOLUTION IN THE NUMBER
OF TAP IN THAT IT IS NOT
PASSED THROUGH FREQUENCY
OF TRANSITION BAND

FIG.32C

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

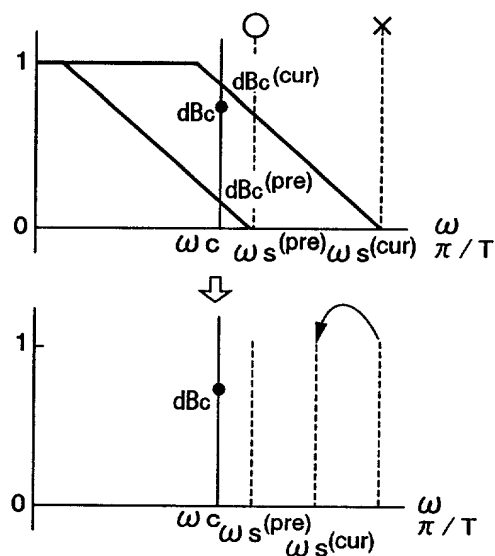


FIG.33A

ONLY ONE SIDE
SATISFIES
→FOR NEXT STEP

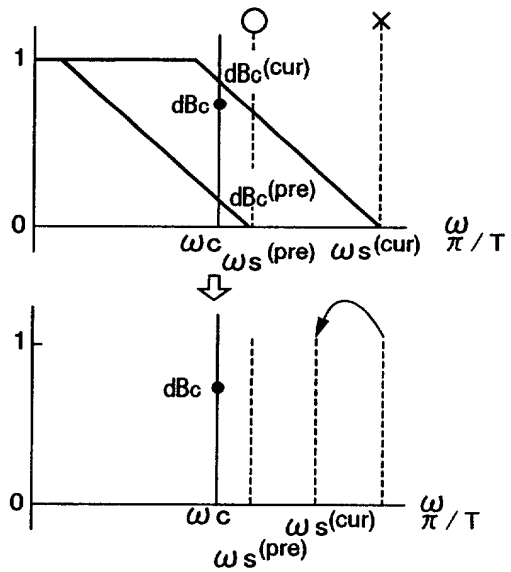


FIG.33B

BOTH SATISFY
→FOR NEXT STEP

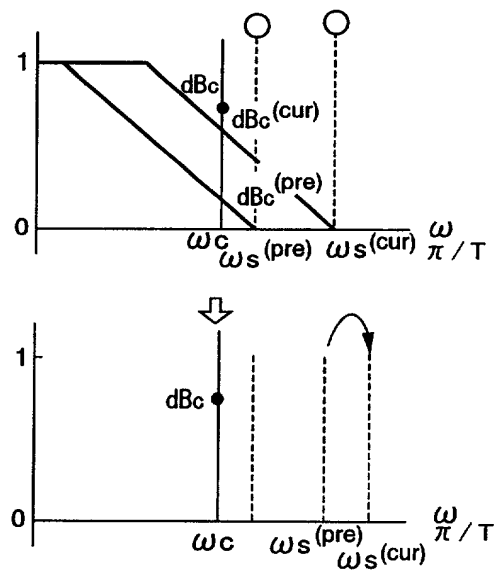


FIG.34

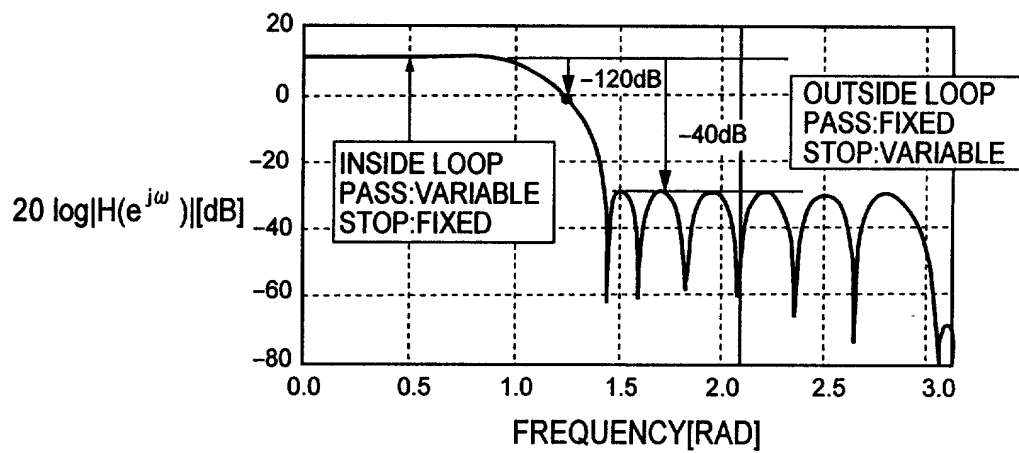


FIG.35

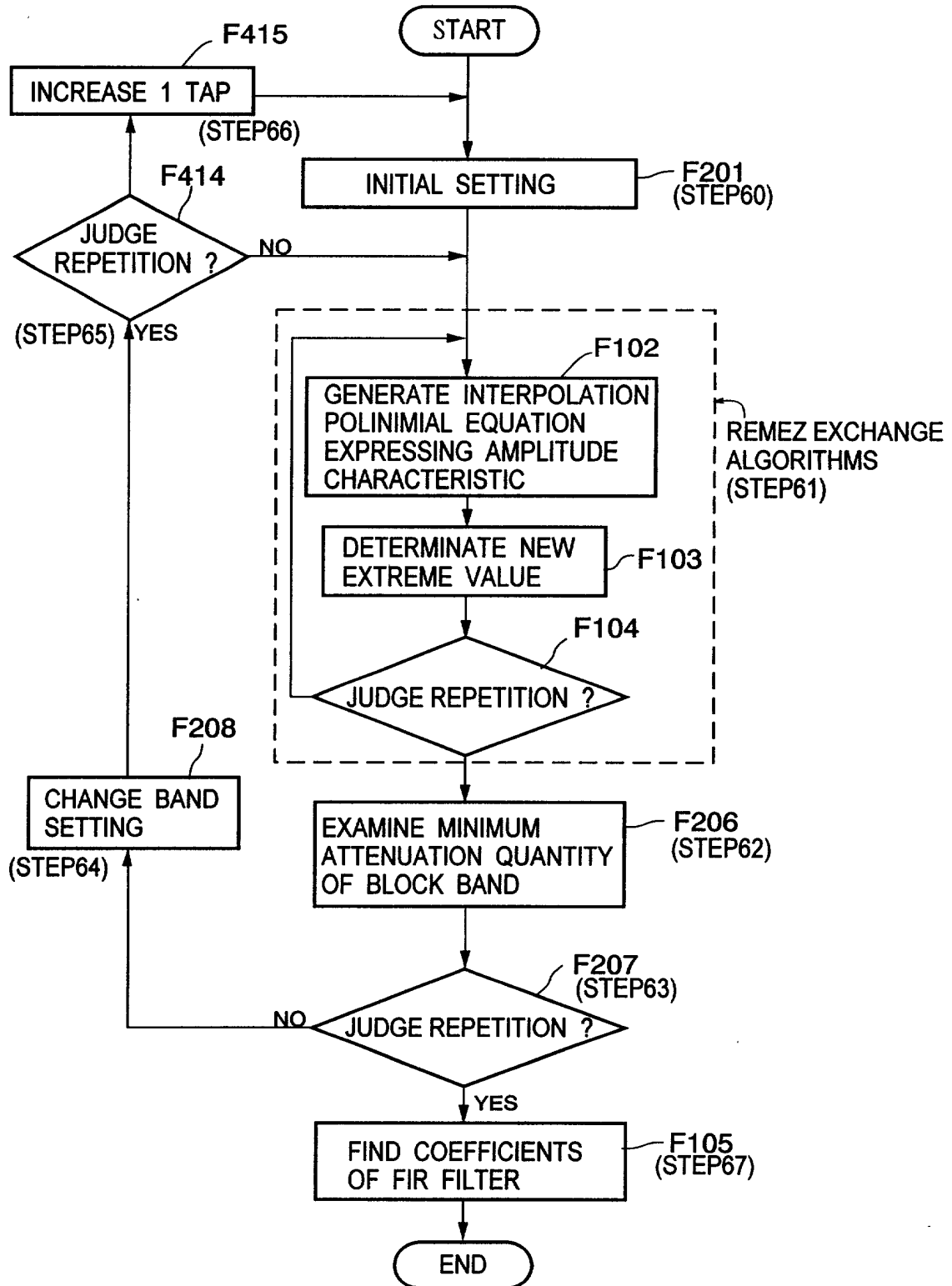


FIG.36

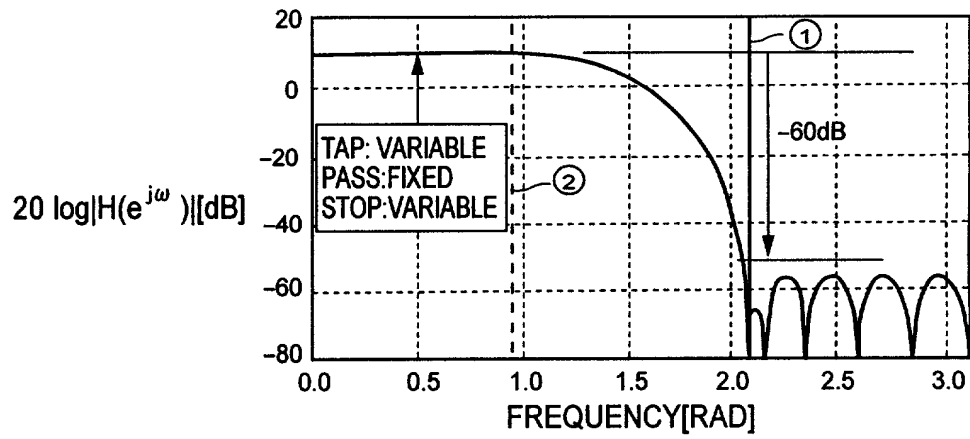


FIG.37

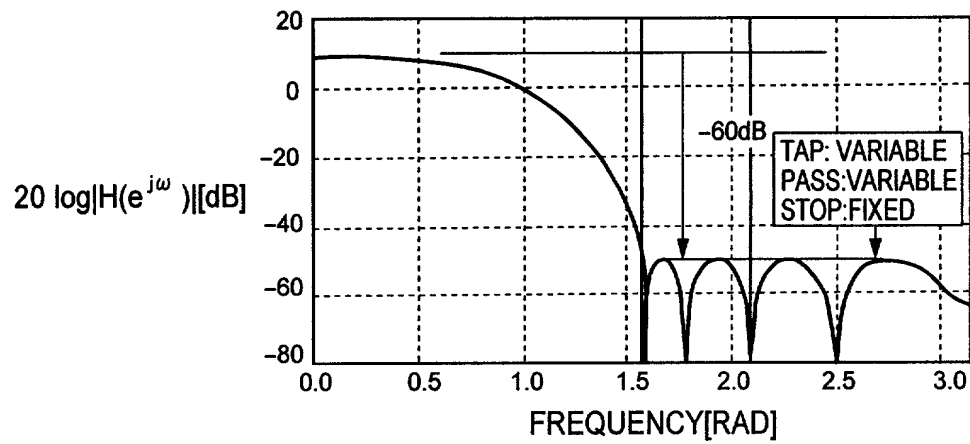


FIG.38

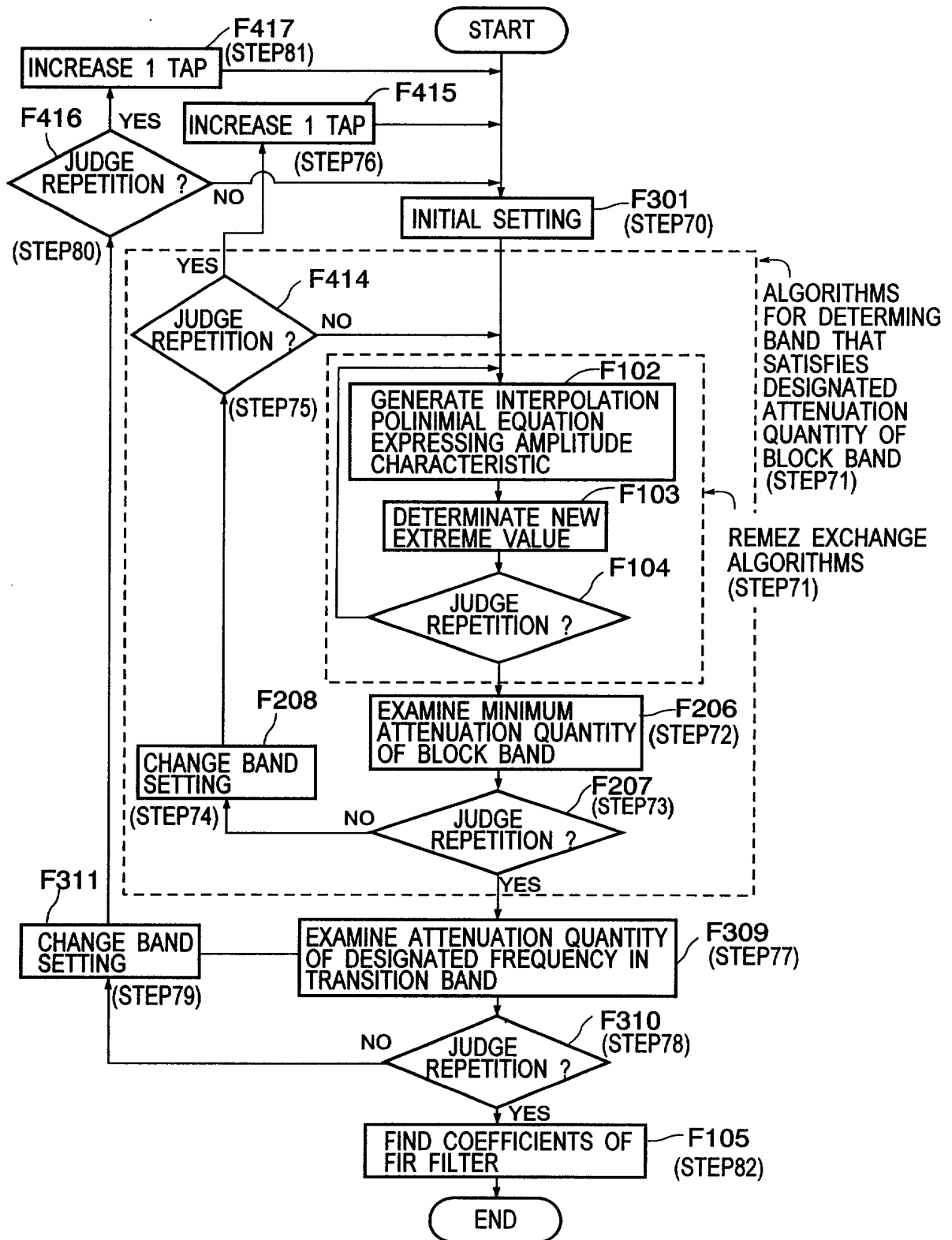


FIG.38

FIG.39

